AMERICAN MUSEUM NOVITATES

Number 753 Published by THE AMERICAN MUSEUM OF NATURAL HISTORY New York City Nov. 10, 1934

59.88, 6 (85)

STUDIES OF PERUVIAN BIRDS. XIV[1]

NOTES ON THE GENERA *DENDROCOLAPTES, HYLEXETASTES, XIPHOCOLAPTES, DENDROPLEX,* AND *LEPIDOCOLAPTES*

BY JOHN T. ZIMMER

I have been greatly aided in the preparation of this paper by certain comparative notes supplied by Mr. J. Berlioz of the Paris Museum, Dr. Herbert Friedmann of the U. S. National Museum, and Dr. C. E. Hellmayr of Vienna, for whose kind assistance I am very grateful.

Names of colors when capitalized indicate direct comparison with Ridgway's 'Color Standards and Color Nomenclature.'

Dendrocolaptes certhia radiolatus Sclater and Salvin

Dendrocolaptes radiolatus SCLATER AND SALVIN, "1867" = 1868, P. Z. S. London, p. 755—Yurimaguas, Perú; British Mus.

In a series of fourteen skins from the Ucayali, middle Marañón, and upper Amazon, in Perú, I can find no differences of note. East-Ecuadorian and southeast-Colombian (Amazonian slopes) material is similar, and fifteen examples from the right bank of the upper Rio Negro in Brazil show no constant differences and belong to *radiolatus*. Examples from the left bank of both upper and lower Negro and from the Cassiquiare (both banks) and the vicinity of Mt. Duida are all definitely *certhia*, which ranges thence to the Guianas and the Rio Jary, east of Manaos. In the light of the series from the upper Negro I am forced to conclude that Natterer's immature specimens from Marabitanas, referred by Hellmayr to *juruanus*, are *radiolatus*. None of the skins in hand agrees with *juruanus* or shows any tendency in that direction.

Young specimens of *certhia*, on the other hand, are notably inclined toward *radiolatus*, with barring above and below nearly as pronounced though the light portions are lighter, those on the top of the head especially distinct. Some adult examples are slightly more distinctly barred than others, but even in the Cassiquiare series I can find no very close approach to *radiolatus*. Both adults and young birds from all localities show a character that has received little attention but that seems to distinguish *certhia* very well from the other conspecies. Below the

[1]Earlier papers in the series comprise American Museum Novitates Nos. 500, 509, 523, 524, 538, 545, 558, 584, 646, 647, 668, 703, and 728.

auriculars and sometimes involving their lower margins is a distinctly white or whitish patch, usually separated from the whitish throat by a dark line and standing out conspicuously against the surrounding darker areas. None of the other forms is similarly marked although the lower auriculars, malar, and gular areas, combined, are whitish in *medius*, without much approach to the condition shown by *certhia*.

Records of *radiolatus* in Perú are from Yurimaguas, Shanusi, Chamicuros, Iquitos, and Pebas, and several additional localities are added below in the list of specimens examined. Apparently this form keeps to the left bank of the lower Ucayali though it crosses to the right bank on the upper stretches of this stream. I have no examples from the right bank of the river opposite Sarayacu, but two birds from Orosa, south bank of the Amazon a short distance east of the mouth of the Ucayali, are not *radiolatus* but the following form.

Dendrocolaptes certhia juruanus Ihering

Dendrocolaptes juruanus IHERING, "1904" = 1905 (May), Rev. Mus. Paulista, VI, p. 437—Rio Juruá, Brazil.

I have no topotypical material, but skins from the left bank of the lower Rio Madeira, Brazil, and from Orosa, Perú, agree in the characters that are ascribed to this form. The resemblance is closer to *radiolatus* than to *certhia*, but the decidedly finer dusky barring on a duller ground and the paler bill have no counterparts in a large series of *radiolatus*. The distinct barring, especially of the breast and back, and the barlike, rather than guttate, pale markings on the top of the head serve to distinguish *juruanus* from *certhia*.

Some of the specimens are very close to *polyzonus* as exemplified by a single male from the mouth of the Río San Antonio, Bolivia, but the latter is a little more warmly colored.

As noted under *radiolatus*, birds from the right bank of the upper Rio Negro, Brazil, should be referred to *radiolatus* instead of to *juruanus*.

Dendrocolaptes certhia concolor Pelzeln

Dendrocolaptes concolor PELZELN, 1868, 'Orn. Bras.,' I, p. 62—type locality restricted to Borba (Hellmayr, 1925); Vienna Mus.

A curious situation with respect to the present form leads me to discuss it here although its distribution is outside the limits of Perú.

A series of forty-one skins of the *certhia* group is at hand from the region extending from the right bank of the lower Rio Madeira, near Borba, to Pará. Of these, the birds from the immediate right bank of the

Madeira are typical *concolor;* the single Pará skin is typical *medius.* Those from the intermediate localities in part show a variation toward *medius,* varying in degree proportionate to the geographical approach, but in part remain perfectly typical *concolor.*

Thus, of seven birds from Villa Bella Imperatríz, three from the neighborhood of "Lago Andirá" are typical *concolor;* four from "Boca de Andirá" and "Serra de Parintins" are faintly duller in color, with a very little more whitish on the chin and with the obsolete bars on the under parts very slightly better developed. The differences are quite inconspicuous.

Of twelve birds from the Rio Tapajoz, six from the left bank are like the Villa Bella Imperatríz birds, with about the same range of variation. Six from the right bank are all a little lighter in color, somewhat inclined toward *medius.* Of eight birds from the right bank of the Xingú, five are like the Villa Bella Imperatríz examples while four are a little closer to *medius* than those from the right bank of the Tapajoz. Of nine examples from the right bank of the Tocantins, five are typical *concolor* and four are definitely assignable to *medius.*

I can find no ecological factors to account for the peculiar distribution here exhibited. Dr. E. Snethlage gives the habitat of *concolor* as "Urwald" and Dr. H. Snethlage refers *medius* to the same type of country. This phase of the problem must await future study in the field.

If *medius* were derived from *certhia* and *concolor* from *juruanus,* they might react differently on meeting than if *medius* were derived from *juruanus* and *concolor* from one or the other of these. Either possibility has points in its favor. An extensive series from various localities in the critical area might show some factors in the case that are not determinable with the material at hand. I have not found an exact parallel of this type of distribution and believe that an interesting problem here awaits future investigation.

Specimens Examined

D. c. certhia.—French Guiana: Pied Saut, 2 ♂, 1 ♀; Tamanoir, 1 ♀. British Guiana: Potaro Landing, 1 ♂, 1 ♀; Tumatumari, 3 ♂, 2 ♀; Kamakusa, 1 ♂; (no other locality), 1 (?). Venezuela: Sacupana, 1 ♀; (vicinity of Mt. Duida, various localities), 23 ♂, 11 ♀; Río Orinoco, mouth of Río Ocamo, 3 ♂, 2 ♀; opposite mouth of Río Ocamo, 2 ♂; Río Cassiquiare (left bank), Buena Vista, 1 ♂; Solano, 1 ♂; El Merey, 1 ♂; (right bank), opposite El Merey, 1 ♀. Brazil: Rio Negro (left bank), Manaos, 2 ♀; Tarira, 1 ♀; Rio Jamundá, Faro, 8 ♂, 3 ♀.

D. c. radiolatus.—Brazil: Rio Negro (right bank), Tabocal, 1 ♂; Tatú, 3 ♂, 2 ♀, 1 (?); Tahuapunto, 3 ♂; Iauarete, 1 ♀; Pirapucu, 1 ♂. Colombia: Florencia, 1 ♂. Ecuador: Río Suno above Avila, 1 ♀; Río Suno, below San José, 2 ♂;

mouth of Río Curaray, 1 ♂. PERÚ: Puerto Indiana, 1 ♂, 1 ♀; Pomará, 1 ♂, 1 ♀; Sarayacu, 2 ♂, 3 ♀; upper Ucayali, Santa Rosa, 1 ♀; Lagarto, 2 ♂, 1 ♀; mouth of Río Urubamba, 1 ♀.

D. c juruanus.—PERÚ: Orosa, 1 ♂, 1 ♀. BRAZIL: Rio Madeira (left bank), Rosarinho, 6 ♂, 3 ♀; Santo Antonio de Guajará, 1 (?).

D. c. polyzonus.—BOLIVIA: mouth of Río San Antonio, 1 ♂.

D. c. concolor.—BRAZIL: Rio Madeira (right bank), Igarapé Auará, 2 ♂, 2 ♀; Villa Bella Imperatríz (Lago Andirá), 2 ♂, 1 ♀; (Boca Rio Andirá), 2 ♂, 1 ♀; (Serra de Parintins), 1 ♂; Rio Tapajoz (left bank), Igarapé Brabo, 3 ♂, 3 ♀; Rio Xingú, Tapará, 2 ♂, 1 ♀; Porto de Moz, 1 ♀; Rio Tocantins, Baião, 1 ♂, 1 ♀; Pedral, 1 ♂; Mocajuba, 2 ♀.

D. c. concolor × *medius.*—BRAZIL: Rio Tapajoz (right bank), Piquiatuba, 1 ♂; Aramanay, 2 ♀; Santarem, 2 (?); Tamucury, 1 (?); Rio Xingú, Tapará, 2 ♀; Villarinho do Monte, 1 ♂, 1 ♀; Porto de Moz, 1 ♂.

D. c. medius.—BRAZIL: Rio Tocantins, Baião, 1 ♀; Mocajuba, 2 ♂, 1 ♀ Utinga, near Pará, 1 ♂.

Dendrocolaptes picumnus validus Tschudi

Dendrocolaptes validus TSCHUDI, 1844, Arch. Naturg., X (1), p. 296—Perú; forest region between 10° and 12° S. lat. = Chanchamayo region; Mus. Neuchâtel.

Dendrocolaptes plagosus tardus IHERING, 1907, 'Cat. Faun. Braz.,' I, p. 255—Rio Juruá, Brazil.

Dendrocolaptes plagosus negrensis SNETHLAGE, 1925, Jour. für Orn., LXXIII, p. 270—Acajatuba, right bank of lower Rio Negro, Brazil.

Six Peruvian skins from a variety of localities are fairly uniform in their characters. A female from Orosa has the pale portions of the under parts a very little whiter and less buffy than the average, and a male from the Río Tavara is inclined the same way though to an even less noticeable degree. A male from Rosarinho, on the left bank of the lower Rio Madeira, Brazil, is like the Orosa skin in this respect, but the difference from the average Peruvian example is not great enough to warrant the recognition of *tardus*.

Three birds from the right bank of the upper Rio Negro are indistinguishable from *validus* though they obviously represent "*negrensis.*" I am unable to locate the locality "Acajatuba" where the type of "*negrensis*" was obtained unless it is the same as the "Cajútuba" of Natterer, which is somewhere between Taruman (just above Manaos) and Ayrao. A single skin from Igarapé Cacao Pereira, about three and a half miles above Manaos but on the right bank of the Negro, is quite typical *picumnus*, as is a male from Manaos. It would appear that *picumnus* crosses the Negro near its mouth. Farther up, on the right bank, however, *validus* takes its place. The description of "*negrensis*" leaves no doubt as to its identity, which is further substantiated by the skins at hand from Yucabi and Mt. Curycuryari.

A young male from Río Seco, west of Moyobamba, Perú, differs quite noticeably from adults in a number of respects. The pale streaks on the top of the head and back of the neck are expanded into broad, lozenge-shaped spots, with the terminal margins of the feathers blackish and with suggestions of broken, dusky bars in the middle. The streaks on the anterior mantle are similarly widened while the lower mantle is rather prominently barred with dull rufous and blackish. The scapulars and upper wing-coverts also are noticeably barred. The stripes on the breast are enlarged like those on the head and are similarly supplied with paired spots or broken bars of blackish, here quite pronounced. The pattern has many points of resemblance to that of *D. certhia radiolatus*, but the bill is a *picumnus* bill and other features are not in accord with the *certhia* group.

I consider *pallescens* of southwestern Matto Grosso so closely allied to *D. p. seilerni* of northern Venezuela as to require its inclusion in the *picumnus* group. Two birds from northern Bolivia are even closer to *seilerni* in many respects and partly bridge the differences between that form and *pallescens*, but they are distinct in certain features of their own; *seilerni* is connected through *multistrigatus* with *validus*.

A male from Florencia, Colombia, and a female from Villavicencio, both from the Amazonian slopes of the eastern Andes, are not *multistrigatus* as found in the central valleys of Colombia but are much closer to *validus*. Neither is quite typical of that form. The Florencia bird differs, however, only by a somewhat greater warmth of color, and the Villavicencio skin by rather broader and more whitish stripes on the breast and darker brown, but not blackish, bill. The exact significance of the features of the Villavicencio bird is uncertain; there are some points of resemblance to *picumnus*.

Records of *validus* in Perú are from the type locality, Borgoña, Monterico, Ayacucho, Chamicuros, and upper Ucayali.

The north-Bolivian form, mentioned above, is described herewith.

Dendrocolaptes picumnus olivaceus, new subspecies

TYPE from Incachaca, province of Cochabamba, Bolivia; altitude 7700 feet. No. 137,413, American Museum of Natural History. Adult male collected May 18, 1915, by Leo E. Miller and Howarth Boyle.

DIAGNOSIS.—Similar to *D. picumnus pallescens* of southern Matto Grosso, Brazil, but general color beneath decidedly more olivaceous; pale areas and stripes tinged with pale Colonial Buff; auriculars more strongly tinged with rufescent; crown and mantle much darker; back with pale hair-streaks more prominent; under

wing-coverts and axillars with dark bars stronger, more blackish; bars on belly and under tail-coverts stronger and blacker; bill darker brown.

Compared with *D. p. seilerni* of northern Venezuela the differences are even less marked, but general color beneath more olivaceous with pale areas less whitish; top of head slightly lighter brown with pale stripes deeper buff; mantle a little more strongly streaked; auriculars more strongly tinged with rufous; bars on under wing-coverts and axillars a little heavier; bill of the same general color.

RANGE.—Tropical Zone of northern Bolivia.

DESCRIPTION OF TYPE.—Top of head light Sepia, each feather with a shaft-line of rather deep buff expanding slightly toward the end of the feather which has a blackish apical margin and several pairs of indistinct dusky dots along the outlines of the shaft-stripes; hind neck somewhat lighter brown, marked like the crown though less distinctly; mantle a little warmer than Dresden Brown; upper portion with narrow, whitish shaft-stripes outlined with dusky lines or dots; lower mantle with the streaks narrower and confined to the shafts, and with the dusky markings expanded into suggestions of ill-defined, broken cross-bars; rump and upper tail-coverts light Chestnut, duller and faintly barred on the upper portion, clearest on the tail-coverts. Lores whitish; a rather strong buff superciliary stripe, the feathers included in it margined with brownish; auriculars deep Amber Brown at tips, paler at bases, with the feathers outlined with blackish; chin dull, light Colonial Buff; throat similar with some dusky marginal markings; fore neck, breast, and sides of neck a little browner than Medal Bronze, with broad, tapering shaft-stripes the color of the throat, strongly outlined with blackish brown; belly and under tail-coverts buffy, with three or more distinct blackish bars on each feather; flanks a little darker, with markings more obscure. Wings light Chestnut, with tips of primaries somewhat shaded with dusky, and with dull brownish outer margins on the secondaries, less pronounced on the primaries, and obsolete on the tertials; upper wing-coverts like the back but with inner portions of the primary and greater series strongly chestnut; some suggestions of pale shaft-stripes and obsolete cross-bars present; under wing-coverts light ochraceous buff with relatively heavy cross-bars of blackish. Tail Bay. Maxilla (in dried skin) light brown; mandible paler, more yellowish; feet dull brown. Wing, 132 mm.; tail, 118; exposed culmen, 31; culmen from base, 38.5; tarsus, 28.25.

Dr. Hellmayr writes me concerning two skins from Río San Mateo, Bolivia, an adult female and an apparently young bird without given sex, that differ from the cotypes of *pallescens* in much the way that I have indicated for *olivaceus*. Río San Mateo is a locality in western Bolivia visited by Garlepp, but I have been unable to find it on any map. There is little doubt, however, that it must be included in the range of *olivaceus*.

SPECIMENS EXAMINED

D. p. picumnus.—BRITISH GUIANA: Potaro Landing, 1 ♂, 1 ♀; Tumatumari, 1 ♂, 1 ♀. BRAZIL: Faro, 4 ♂, 5 ♀; Colonia de Veado, Obidos, 1 ♀; Manaos, 1 ♂; Igarapé Cacao Pereira, 1 ♀.

D. p. seilerni.—VENEZUELA: Las Trincheras, 2 ♂, 2 ♀; La Trinidad, 1 ♂; La Latal, 1 ♂. COLOMBIA: Santa Marta, Las Nubes, 1 ♂; El Libano, 1 ♂, 2 ♀; Valparaiso. 2 ♂. 2 ♀, 1 (?).

D. p. multistrigatus.—COLOMBIA: Fusugasugá, 1 (?); Aguadita, 1 ♀; above Salento, 1 ♀,1 (?); east of Palmira, 1 ♂; La Candela, 1 ♂; Cerro Munchique, 1 ♀. VENEZUELA: Pedregosa, near Mérida, 1 ♂[1].

D. p. validus.—COLOMBIA: Florencia, 1 ♂[1]; Villavicencio, 1 ♀[1]. BRAZIL: Rio Negro, Yucabi, 1 ♂, 1 ♀; Mt. Curycuryari, 1 ♂; Rio Madeira, Rosarinho, 1 ♂. PERÚ: Río Amazonas, Orosa, 1 ♀; Río Ucayali, Lagarto, 1 ♂, 1 ♀; Río Tavara, 1 ♂; Río Seco, west of Moyobamba, 2 ♂.

D. p. pallescens.—BRAZIL: Urucum, 3 ♂, 3 ♀; Belvedere de Urucum, 1 ♀; Piedras Blancas, 2 ♀. ARGENTINA: Perico, 1 ♂, 1 ♀; "Tafi trail," province of Tucuman, 1 ♀. PARAGUAY: Fort Wheeler, 1 ♂, 2 ♀.

P. p. olivaceus.—BOLIVIA: Incachaca, 2 ♂ (incl. type).

Dendrocolaptes platyrostris platyrostris Spix

Dendrocolaptes platyrostris was recorded from Perú by Cassin on the basis of a specimen obtained by the Wilkes Exploring Expedition and labeled as from that country. The specimen, now in the U. S. National Museum, has been examined and proves to be a typical example of *platyrostris*, but the locality is certainly in error. The bird must have been obtained on the southeastern coast of Brazil, possibly at Bahia or Rio de Janeiro.

Hylexetastes stresemanni undulatus Todd

Hylexestastes undulatus TODD, 1925 (May 26), Proc. Biol. Soc. Wash., XXVIII, p. 80—São Paulo de Olivença, Brazil; ♂; Carnegie Mus.

A young male from Lagarto, upper Ucayali, represents the first record of this species from Perú. I have no topotypical examples of *undulatus* for comparison, but four skins from Teffé agree with the description of this form and, in major details, with the Peruvian bird, thus covering localities on both sides of the type locality. I have no specimens of *stresemanni* for comparison, but the Teffé and Peruvian birds are distinctly olivaceous brown on the breast, much less warmly colored than *p. perrotii* or *p. uniformis*, though the upper parts are much like *perrotii*. The forehead lacks any trace of whitish shaft-lines as described for *stresemanni*.

The Peruvian bird matches the Teffé skins, as stated, in most particulars but differs in respect to some of the plumage of immaturity which has not yet been lost. Thus the throat and breast are almost as strongly barred as the belly though the bars of the throat and upper breast are broken by a buffy space corresponding to the shaft-stripes of the adults. A few adult feathers of normal appearance are coming into place. There are faint suggestions of broad dark bars on the uropygium,

[1]Not typical.

visible only at certain angles. The bill is dusky brown, paler cinnamomeous brown on the mandible. In other respects the characters are those of the adults though a coarser texture of the feathers indicates the immaturity of some of these also.

A single male from the Rio Uaupés, Brazil, is recognizably distinct from *undulatus* in the opposite direction from *stresemanni* as described. Since it is without a name it may be known as follows.

Hylexetastes stresemanni insignis, new subspecies

TYPE from Tahuapunto, left bank of the Rio Uaupés, Brazil. No. 300,415, American Museum of Natural History. Adult male collected July 5, 1929, by the Olalla brothers.

DIAGNOSIS.—Similar to *H. s. undulatus* from the south bank of the upper Amazon but more olivaceous, especially on the head and mantle; uropygium duller rufous; outer and longer upper tail-coverts tipped with buff and banded with dusky; whitish stripes of breast not outlined with dusky; color of breast clearer dark olive; upper flanks more olive with barring indistinct; under wing-coverts paler and more buffy, with dusky bars more broadly spaced; upper wing-coverts strongly olivaceous on the margins; under tail-coverts not notably rufescent. Bill shorter, as in *H. perrotii uniformis*. A suggestion of the whitish supramalar stripe of *H. p. perrotii* present. Forehead not streaked.

RANGE.—Region of right bank of the upper Rio Negro, Brazil.

DESCRIPTION OF TYPE.—Top of head and mantle near Light Brownish Olive, unmarked; rump and central upper tail-coverts Tawny; lateral and terminal upper tail-coverts duller, with tips ochraceous buffy and with rather prominent, broad crossbars of dusky. Lores and subocular space whitish, continued less distinctly to the base of the auriculars; auriculars and sides of neck Buffy Olive; malar region Brownish Olive in a broad stripe connected posteriorly with the sides of the neck and breast. Chin narrowly whitish; throat and breast with margins Buffy Olive × Light Brownish Olive and with whitish shaft-stripes, broadest on upper throat, becoming obsolete on lower breast where, however, there are indications of faint dusky bars; sides of breast like breast but unmarked; flanks Light Brownish Olive with obscure bars; belly dull whitish with a tinge of olive-buff, distinctly barred with blackish; under tail-coverts barred with pale buff (faintly pinkish on lower portion) and dusky. Wings exteriorly pale Chestnut with outer margins of primaries olivaceous at base; upper wing-coverts rufous with outer margins and tips strongly brownish olive, concealing most of the rufous color of the central areas and inner webs; under wing-coverts whitish, with a slight buffy tinge, crossed by rather broadly spaced dusky bars somewhat broken at the shafts; inner margins of remiges Pinkish Cinnamon × Pinkish Buff; primaries dusky terminally, most broadly dusky on outer ones. Tail light Bay above, paler on ventral aspect. Bill (in dried skin) dark Liver Brown, brightest at base of mandible; feet dull slaty brown. Wing, 129 mm.; tail, 103; exposed culmen, 34; culmen from base, 40; tarsus, 31.5.

There is so much resemblance between *stresemanni* and its conspecies and the *perrotii* group that specific distinction is not unquestioned. The

various forms represent each other geographically without overlapping ranges and the areas occupied by each are such as support conspecific forms of other species. However, material is rather limited and certain regions should be represented before a union is formally proposed.

SPECIMENS EXAMINED

H. stresemanni undulatus.—BRAZIL: Teffé, 3 ♂, 1 ♀. PERÚ: Lagarto, 1 ♂.

H. s. insignis.—BRAZIL: Tahuapunto, 1 ♂ (type).

H. p. perrotii.—BRITISH GUIANA: Potaro Landing, 1 ♂, 1 ♀, 1 (?). BRAZIL: Faro, 1 ♂.

H. p. uniformis.—BRAZIL: Rio Tapajoz (right bank), Caxiricatuba, 1 ♀; (left bank), Igarapé Brabo, 1 ♀; Igarapé Amorin, 3 ♀; Rio Jamauchim, Tucunaré, 1 ♀.

Xiphocolaptes promeropirhynchus orenocensis Berlepsch and Hartert

Xiphocolaptes orenocensis BERLEPSCH AND HARTERT, 1902, Novit. Zool. IX, p. 65—Nericagua, Venezuela.

A male from Sarayacu, lower Ucayali, Perú, compares very well with a male from El Merey, Río Cassiquiare, Venezuela, which I take to belong to *orenocensis*. A third male from the Tropical Zone of eastern Ecuador (below San José) belongs here also. The general appearance is very similar to *X. p. berlepschi*, though there is a somewhat browner (less rufous) tinge on the back, the throat is less purely white as are also the pale stripes of the breast, and the abdominal feathers lack the bright rusty hue so characteristic of *berlepschi*, being nearer Argus Brown or light Auburn. The bill is about equally heavy and pale in both forms.

The Peruvian bird has the top of the head a little less deeply blackish than the other two skins, but this is not an approach toward *berlepschi* which has the cap as dark as in the Cassiquiare and Ecuadorian skins I have referred to *orenocensis*.

I have not seen examples from the upper Ucayali and its tributaries (in the Tropical Zone), but examples from Pozuzo and La Gloria have been referred by Hellmayr to the following form, where they will be discussed more fully.

Xiphocolaptes promeropirhynchus berlepschi Snethlage

Xiphocolaptes promeropirhynchus berlepschi SNETHLAGE, 1908, Jour. für Orn., LVI, p. 15—Cachoeira, Rio Purús, Brazil; ♂; Mus. Goeldi, Pará.

Four males from Rosarinho, Rio Madeira, obviously represent this subspecies which has been recorded from the Purús to the Tapajoz. A single male from the Río Tavara, southeastern Perú, agrees in most respects with the Rosarinho birds, being slightly smaller and less exten-

sively (but not less brightly) rusty on the margins of the abdominal feathers.

Specimens from Pozuzo and La Gloria, Perú, have been referred by Hellmayr to this form. I have no detailed notes about the Pozuzo bird but Berlepsch and Stolzmann's original account of the La Gloria specimen does not accord in all respects with any example of *berlepschi* now before me. The back and under parts are said to be more olivaceous and less rufous than in typical *promeropirhynchus*, but the reverse is true in the series at hand. However, the account does not apply any more accurately to *orenocensis*, and the record may be left with *berlepschi* for the present.

Records of *berlepschi* from Perú are from Yahuarmayo, La Gloria, and Pozuzo, in addition to the Río Tavara from which I have a specimen.

Xiphocolaptes promeropirhynchus lineatocephalus (Gray)

Dendrocolaptes lineatocephalus Gray, 1847, 'Gen. Birds,' I, Pl. xliii—no locality = Bolivia (1869, 'Handl. Gen. Sp. Birds,' I, p. 176); British Mus.

Recorded only once from Perú, from Huaisampillo. I have no Peruvian examples.

Xiphocolaptes promeropirhynchus phaeopygus

Berlepsch and Stolzmann

Xiphocolaptes phaeopygus Berlepsch and Stolzmann, 1896, P. Z. S. London, p. 377—Culumachay, near Maraynioc, Perú; ♂; Warsaw Mus.

A female from Chelpes, Junín, is very nearly topotypical. It agrees with the original description of this form in having the top of the head only faintly darker than the back and with the shaft-streaks nearly obsolete. The uropygium is hardly different from the back, though a slight rufescent tone is visible, a little better marked on the upper tail-coverts than on the rump. The under parts are darker and browner than in skins of *compressirostris* now at hand from northern Perú, and have the shaft-stripes somewhat narrower, though equally strongly outlined by blackish borders. The remiges are more purely rufescent on their exterior margins (less tinged with olive), and the throat is a little darker, with the individual feathers more strongly outlined with brownish.

Carriker (1933, Proc. Acad. Nat. Sci. Phila., LXXXV, p. 14) records specimens from Huacapistana, which are said to have the under parts paler than in *compressirostris*, without dusky margins on the pale shaft-stripes, and with the rump and upper tail-coverts more rufescent than in the more northern forms. Evidently these characters are highly variable

and the distinction of *phaeopygus* from *compressirostris* must rest largely on the more prominent streaking of the top of the head in *phaeopygus* and the slightly smaller size of the same form, though the latter needs greater confirmation. Possibly Carriker's birds show an approach toward *lineatocephalus* of Bolivia, which has a strongly rufescent rump and sometimes lacks the dusky margins of the ventral streaks. Records are from Culumachay and Huacapistana.

Xiphocolaptes promeropirhynchus compressirostris Taczanowski

Xiphocolaptes compressirostris Taczanowski, 1882, P. Z. S. London, p. 28—Ray-Urmana, Perú; ♂; type formerly in Warsaw Mus., now lost.

Three females from La Lejia, north of Chachapoyas, are referable to this subspecies although they are far from uniform. One, taken on March 19, is very dark, near warm Brussels Brown on the back and light Raw Umber on the breast. The other two, taken March 4 and April 16, are much paler. The March 4th bird is near Dresden Brown on the back and Light Brownish Olive × Isabella on the breast. The April 16th bird is a little darker, but not nearly so dark as the March 19th example, and has a trace of dusky outlines surrounding the shaft-streaks of the mantle, not found in the other two. All agree, however, in the relatively prominent streaking of the top of the head and the mantle, which distinguishes this form from *phaeopygus*, and in the relatively weak development of the rufous color on the uropygium, which distinguishes it from *ignotus*. While *ignotus* is usually more warmly colored than *compressirostris*, a female from Chical (western slopes of Mt. Naupan) is almost as light in coloration as the April 16th example of *compressirostris* from La Lejia. A female of *ignotus* from above Baeza, Ecuador, is almost as pale as the March 4th example of *compressirostris*, but both it and the Chical example have the uropygium more broadly and intensely rufous.

Records from Ray-Urmana, Tambillo, Chirimoto, Cutervo, and Leimebamba presumably all belong to *compressirostris*.

Xiphocolaptes promeropirhynchus crassirostris
Taczanowski and Berlepsch

Xiphocolaptes crassirostris Taczanowski and Berlepsch, 1885, P. Z. S. London, p. 113—Palmal [Río Tumbez, Prov. del Oro], Ecuador.

The only known Peruvian example of this pallid subspecies is a female from La Lajilla, now before me. The entire range of this form seems to be relatively limited, being restricted to a small area in southwestern Ecuador and northwestern Perú on the coastal side of the Andes.

The type locality, Palmal, Ecuador, is said to be a region of humid forests very different from the arid country around Tumbez, but I have little doubt that it represents the same semiarid margin of the true humid Subtropical Zone which I have discussed under *Grallaria ruficapilla watkinsi* (1934, Amer. Mus. Novitates, No. 703, p. 18). At El Chiral, at 5350 feet elevation, in the true Subtropical Zone, *X. p. ignotus* occurs just as *Grallaria r. connectens* replaces *G. r. watkinsi* at the same locality, while *watkinsi* is found at Alamor with *X. p. crassirostris.* The Peruvian locality, La Lajilla, is at only 1100 feet elevation, the highest point reached after crossing the Río Túmbez on a journey from Alamor to Túmbez. The distribution of *Xiphocolaptes promeropirhynchus* and that of *Grallaria ruficapilla* are thus very similar in this part of their specific ranges and, I believe, follow the same general zonal restrictions. The full limits of this "semiarid subtropics" have yet to be determined but probably follow along the slopes of the Andes for such distance as the humid Subtropical Zone comes under the influence of an immediately adjacent arid Tropical Zone; the lower portion of the Subtropical Zone, from near 1000 feet up to about 5000 feet, comprises the interesting habitat in question.

In the comparative study of typical *promeropirhynchus,* a possible clue to the identity of *Xiphocolaptes virgatus* Ridgway presented itself. The type of this "form" is not exactly like any other specimens at hand from any locality, but there is a strong resemblance to a male from Laguneta, Colombia, in most particulars. The differences between these two birds are the somewhat darker ventral color of the type (more nearly approaching a male from Salento), with the throat-feathers more noticeably bordered with brown. The points of similarity are the strong streaking on the head and back, the somewhat drab tone of the back, the pronounced streaks on the upper wing-coverts, and the vertically thick, relatively pale bill. In skins from Salento and Río Toche there is similarity in the shape and color of the bill, 11 mm. high at nostril, whereas the birds at hand from La Candela, La Palma, Aguadita, "Bogotá," and the Mérida region of Venezuela have a blacker and more slender bill, varying from 8.25 mm. to 10 mm. in height at the nostril, sometimes straight and sometimes strongly curved but apparently never so high as in the skins from the Central Andes of Colombia. On this character alone, therefore, it is possible to separate the central Andean specimens which may bear the name *virgatus* unless, or until, it can be demonstrated that the latter is better applied elsewhere.

My association of the *promeropirhynchus* and *orenocensis* groups

probably will be questioned, but I am unable to find a definite line of demarcation between them. Some examples of typical *promeropirhynchus* are quite similar in many respects to *orenocensis* and differ principally in the less blackish margins on the crown-feathers and the smaller and blacker bill. Specimens of *virgatus* are nearer to *orenocensis* in these respects though they differ from it in other details. A similar bill is found in *procerus*, and again in *crassirostris* where the top of the head becomes noticeably blackish. In short, it is possible to trace a fairly close degree of relationship through all the members of the combined group, though it is far from direct.

At all events, *orenocensis*, *berlepschi*, and, presumably, *obsoletus* are the representatives of the group in the humid Tropical Zone of the Amazonian basin; the other forms occupy the Subtropical Zone at various stations along the chain of the Andes.

In some respects, *crassirostris* is so close to *orenocensis* that I am inclined to the belief that it is a direct derivative of *orenocensis*, left on the Pacific side of the Andes when the mountains were uplifted, and modified, before or afterward, by close association with the more arid conditions developed on the coast. It does not, however, appear to belong to the humid Colombian-Pacific fauna as defined by Dr. Chapman, in which no member of this species is known to occur, but is subtropical, though, as suggested, of different immediate origin than *ignotus*, which occupies the higher and still more humid subtropical region but which is directly connected with *promeropirhynchus*.

In any case, the relationships are so close that segregation into two species becomes difficult.

Specimens Examined

X. p. promeropirhynchus.—Venezuela: Culata, 2 ♂, 1 ♀. Colombia: "Bogotá," 3 (?); La Palma, 1 ♂; La Candela, 1 ♂, 2 ♀; Aguadita, 1 ♂, 1 ♀; Subia, 2 ♀; Montaña de Esmeralda, above Supata, Cundinamarca, 1 ♂.

X. p. virgatus.—Colombia: [Antioquia?], 1 (?) (type); Salento, 1 ♂, 1 (?); Laguneta, 1 ♂; Río Toche, 1 ♂.

X. p. sanctae-martae.—Colombia: San Lorenzo, 1 ♂, 1 ♀; Valparaiso, 2 ♂, 1 ♂; El Llano, 2 ♂, 1 ♀; Las Nubes, 1 ♀.

X. p. procerus.—Venezuela: Las Trincheras, 1 ♀; La Latal, 1 ♀; Carapas, 1 ♂.

X. p. orenocensis.—Venezuela: El Merey, Río Cassiquiare, 1 ♂. Ecuador: below San José, 1 ♂. Perú: Sarayacu, 1 ♂.

X. p. ignotus.—Ecuador: El Chiral, 2 ♂, 1 ♀; Baeza, 3 ♀; upper Sumaco, 1 ♂; Pallatanga, 1 ♂; Chical, 1 ♀; (no locality), 1 ♂.

X. p. crassirostris.—Ecuador: Alamor, 2 ♂. Perú: La Lajilla, 1 ♀.

X. p. compressirostris.—Perú: La Lejia, 3 ♀.

X. p. phaeopygus.—Perú: Chelpes, 1 ♀.

X. p. berlepschi.—Perú: Río Tavara, 1 ♂. Brazil: Rosarinho, 4 ♂.

X. p. lineatocephalus.—Bolivia: Incachaca, 1 ♀; Yungas, Prov. Cochabamba, 1 ♀; Pitiguaya, 1 ♀, 1 (?); Roquefalda, 1 ♂.

Dendroplex picus peruvianus, new subspecies

Type from Santa Rosa, upper Río Ucayali, Perú. No. 240,421, American Museum of Natural History. Adult male collected November 17, 1927, by the Olalla brothers.

Diagnosis.—Similar to *D. p. kienerii* of Teffé, Brazil, but coloration lighter and brighter rufous; throat deeper buff; dark margins of pectoral feathers browner, less blackish; top of head browner or grayer, less sooty, and with the pale central spots averaging larger; bill more extensively whitish.

Range.—Eastern Perú, at least along the course of the Río Ucayali.

Description of Type.—Top of head grayish brown, darker at the tips of the feathers and with a large, ovate, central spot of pale buff; hind neck lighter, warmer brown, with pale spots more elongate; mantle light Auburn × Chestnut, with rather broad, whitish shaft-stripes anteriorly, reduced to hair-lines in the median portion, and obsolete posteriorly; rump and upper tail-coverts Chestnut × Bay. Lores pale buff, a fine, whitish line over the eye broadening over the auriculars where the feathers have narrow dusky tips; malar region light buffy, with dusky margins and tips broadest along the lines separating the area from the throat and auriculars; auriculars pale buffy with slight dusky margins, broadest on upper border where they form a dark postocular stripe; chin pale buff; throat deeper, near Pinkish Buff and with slight dusky margins and tips, broadest near the chest; upper breast with broad central spots of light buff, rounded at tips and outlined by a sooty brown margin; sides of breast and lower breast similar but stripes less heavily outlined, and margins of feathers warm Brussels Brown; belly warm Brussels Brown with narrow, poorly defined shaft-lines; flanks a little darker and tinged with Auburn, faintly streaked; under tail-coverts similar, with shaft-streaks more prominent. Outer surface of wings light Chestnut, clearer on tertials and lesser upper coverts, slightly duller on remainder; tips of primaries and secondaries dusky (up to about half of outer primary), not sharply defined; under wing-coverts Tawny × Ochraceous-Tawny; tail Dark Bay. Bill (in dried skin) dull whitish, dusky at base of maxilla; feet blackish slaty. Wing, 102 mm.; tail, 82; exposed culmen, 30; culmen from base, 34; tarsus, 22.5.

Remarks.—Female similar to male but apparently with slightly shorter wing (single specimen, 98 mm.); other measurements not different.

One male, from Sarayacu, has the top of the head slightly sootier than the type; several from the type locality have the head decidedly paler and grayer or browner; others match the type. Nothing in the series of *kienerii* from Teffé approaches these skins very closely in these or the other diagnostic characters; they are darker in almost all particulars, including the color of the bill. Peruvian records from Moyobamba and Pebas probably belong with *peruvianus.*

Most skins from northern Bolivia (Todos Santos) and western Matto Grosso (Descalvados and Tapirapoan) show more affinity to the

Peruvian birds than to the Teffé series. They are not quite typical, however, and in the extreme development of the pale spots on the top of the head are very like Bahia specimens though they are more deeply colored. Their bills are shorter than those of most *peruvianus* (males: culmen from base, 29–30.5 mm., as against 30–34; females: 27.25–31, as against 32). They are far from uniform in coloration and a larger series from the region will be necessary to determine their true affinities. A young bird from Utiarity may belong to *picus* which occurs lower down the same stream, the Tapajoz.

One female from Igarapé Auará, Rio Madeira (right bank), Brazil, is even more rufous than *kienerii* or *peruvianus*, but it has the whitish bill and the light crown of *peruvianus* though the bill is relatively short (30.25 mm. to base), more like *kienerii*. The wing is 101 mm. Probably this represents an abnormal coloration since it is not approached in eleven additional skins from near the same locality.

A series of ten skins from Teffé I assume to represent true *kienerii*, though there is a little doubt about the application of the name, which will be discussed later. They are darker than *peruvianus* and more rufescent than *picus* from the Guianas and Faro, Brazil, with a slightly greater average wing-length than *picus* and with rather broader, less well-defined whitish stripes on the upper belly.

Skins from other points along the south bank of the Amazon, from the left bank of the Rio Madeira to the Tocantins, and on the right bank of the lower Rio Negro, north of the Amazon, are not clearly distinguishable from *picus* though there is a tendency toward a warmer tone, not at all constant, but sometimes pronounced.

Several skins from Manaos are somewhat clearly differentiated and have the pale stripes of the belly broader and noticeably outlined with blackish; but one or two more from the same locality are not clearly distinguishable from Faro skins. Those that are somewhat different appear to show a tendency toward the birds of the upper Rio Negro and the region of Mt. Duida, Venezuela, which, in turn, present sufficiently strong characteristics to warrant their description as a new form. It may be known as follows.

Dendroplex picus duidae, new subspecies

TYPE from Caño León, Mt. Duida, Venezuela: altitude 325 feet. No. 274,313, American Museum of Natural History. Adult male collected October 20, 1928, by the Olalla brothers.

DIAGNOSIS.—Similar to *D. p. picus* but throat purer white, less strongly marked with dusky; belly more strongly streaked with the stripes broader, whiter, and much

more distinctly margined with dusky; hind neck and upper part of mantle similarly marked with broad, whitish stripes conspicuously outlined with blackish.

RANGE.—Vicinity of Mt. Duida, Venezuela, and adjacent parts of the upper Orinoco, passing southward to the upper Rio Negro in Brazil and descending the right bank to Tabocal.

DESCRIPTION OF TYPE.—Top of head sooty brown with paler shafts and a small ovate spot near the tips, a blackish terminal border present beyond the pale spot; forehead with whole subterminal portion drab, not so pale as the shafts; nape with pale spots more buffy, less well-defined; hind neck and anterior part of mantle with margins and tips warm Argus Brown, separated from the broad white shaft-stripes by a prominent blackish line; rest of mantle Argus Brown with whitish shaft-lines only immediately adjacent to the anterior, broadly striped portion; uropygium light Chestnut. Lores whitish, continued over the eye and auriculars in a broad whitish stripe, with the feathers over the auriculars tipped and margined with dusky brown, increasingly prominent posteriorly and broadening on the sides of the neck to match the pattern of the upper mantle; malar region whitish with obsolete dusky tips but with a dusky line separating this area from the auriculars and another line bordering the throat; auriculars also whitish, with dusky borders noticeable anteriorly and broad and conspicuous on the upper border where they form a dark postocular stripe; chin whitish; throat whitish with obsolete dusky tips anteriorly, becoming more prominent posteriorly; breast with dark borders still more prominent giving a decidedly squamate appearance, with central, whitish areas broad and rounded terminally; sides similar but with the pale central areas a little narrower and the external margins broader, a little warmer than Brownish Olive; belly buffy brown with whitish shaft-stripes (narrower than those of breast) rather distinctly outlined with dusky; flanks near Saccardo's Umber, streaked like the belly on the upper portion but with streaks obsolete on the lower portion; under tail-coverts near Brussels Brown, with basal feathers prominently striped, longer ones not striped. Wings rufous; outer margins of outer remiges and outer coverts darker and duller; tertials and lesser coverts brighter; tips of primaries and secondaries (including terminal three-fourths of outermost primary) dusky, not sharply defined from rufous portions; under wing-coverts Pinkish Buff × Light Pinkish Cinnamon; tail near Chestnut. Bill (in dried skin) pale horn-color, somewhat yellowish at base of mandible, dusky at base of maxilla. Wing, 25 mm.; tail, 74; exposed culmen, 26; culmen from base, 29; tarsus, 20.

REMARKS.—Females not clearly distinguishable from the males.

Two birds from the "Upper Orinoco" (presumably well above Maipures) may be referred to *duidae* without hesitation. A female from Munduapo is not quite so clearly marked and yet has many of the characteristics of this form. A male and a female from Ciudad Bolívar and a female from Agua Salada de Ciudad Bolívar are rather distinct, and appear to be intermediate between *picus* and *picirostris* which latter reaches the Orinoco in the vicinity of Caicara, above Ciudad Bolívar. These three birds have the whitish marks of the breast and hind neck distinctly rhomboid in shape, broader than in *picus* but not so broad as in

picirostris, while the lower throat and upper breast are distinctly margined with dusky, not pure white. The general color of the under parts is much more grayish in tone than true *picus*. Birds from farther down the Orinoco, at Las Barrancas and Sacupana, are rather closer to *picus* but show some of the characteristics mentioned for the skins from Ciudad Bolívar. Without a larger series from the lower Orinoco I hesitate to do more than suggest the strong possibility of the intergradation of *picus* and *picirostris* somewhere between Ciudad Bolívar and Caicara.

Two males from Villavicencio, at the eastern base of the eastern Andes of Colombia, are of uncertain identity. One is inseparable from *picus;* the other is more warmly rufescent but does not markedly suggest *peruvianus*. Possibly they bear some relation to *saturatior*, which I have not seen.

Birds from Bahia and nearby portions of eastern Brazil may be separable under the characters given by Bangs and Penard for "*Dendroplex picus bahiae.*" Our specimens are rather definitely paler in color than *picus* and have the spots on the top of the head and the upper mantle larger and more prominent. The full investigation of this matter and of the question of the application of the name *chrysolopus* I leave for Mrs. Naumburg's studies of the birds of that region.

Certain examples from the middle course of the Amazon, on both sides of that stream, stand out from the extensive series of the *picus* group so distinctly that the existence of an unsuspected new species becomes apparent. It may be known as follows.

Dendroplex necopinus, new species

TYPE from Muirapinima, Rio Negro (right bank), Brazil. No. 312,106, American Museum of Natural History. Adult male collected October 19, 1929, by the Olalla brothers.

DIAGNOSIS.—Similar to *Dendroplex picus picus* of the Guianas and the lower Amazonian region of Brazil but with the pattern somewhat altered. Mantle duller and more brownish, less rufescent; pale centers of pectoral feathers more elongate, reaching almost or quite to the tips of the webs; dark margins on throat and malar region lateral but not terminal, the effect being that of ovate streaking instead of squamate spotting; lesser upper wing-coverts brown, not rufous; dusky tips of primaries and secondaries blacker and usually more sharply defined; wings averaging longer; remiges averaging more acute; bill averaging more slender when viewed from the side; tail usually longer, both actually and in proportion to the wing.

RANGE.—Both banks of the middle Amazon and the adjacent portions of its tributaries, on the right bank of the lower Rio Negro and the Jamundá, and from the left bank of the Madeira to Villa Bella Imperatríz, west of the Tapajoz.

DESCRIPTION OF TYPE.—Top of the head grayish brown with a narrow blackish terminal band and a subterminal spot of light buff on each on the feathers; hind neck lighter brown, with the pale centers of the various feathers less sharply defined; mantle Argus Brown × Brussels Brown, anteriorly with broad buffy shaft-stripes, not distinctly outlined with dusky brown; these stripes progressively narrower posteriad and obsolete on lower mantle; rump and upper tail-coverts light Chestnut × Bay. Lores whitish; a narrow whitish superciliary line, broadest over the auriculars and with the component feathers edged with dusky brown; malar region and auriculars whitish with the lateral margins of the feathers blackish; chin whitish; throat whitish with a light buffy tinge and with the lateral margins of the feathers narrowly blackish, broadest on the sides of the throat where they form a thin blackish line adjacent to the malar region; breast with light buff centers somewhat sagittate in shape, bordered laterally by blackish lines not surrounding the tips except toward the sides of the breast, but carried well toward the bases of the feathers where they approach the shafts; sides of breast with the tips of the central stripes more rounded and not reaching the tips of the feathers, which have the tips and margins Cinnamon-Brown × Dresden Brown; lower breast with the dusky outlines of the shaft-stripes much reduced or obsolete, with the margins of the feathers Cinnamon-Brown × Saccardo's Umber; belly Tawny Olive × Sayal Brown, with ill-defined whitish shaft-streaks; flanks darker and warmer, near Brussels Brown, with streaks less distinct or absent; under tail-coverts Brussels Brown with strong buffy shaft-streaks. Wings externally Chestnut with outer margins of outer primaries sooty; tips of primaries and secondaries sooty blackish (up to terminal two-thirds of outermost primary), rather clearly, though not sharply, defined from the rufous basal portion; upper wing-coverts duller and browner, lesser series no brighter than the back; under wing-coverts Light Ochraceous-Buff with a tinge of cinnamon; feathers along radial margin of wing with brownish margins and buffy shafts; axillars slightly duller than the under wing-coverts and with darker brown speckles on the outer webs; primary-coverts slightly more cinnamomeous; tail near Bay. Bill (in dried skin) whitish, with base of maxilla dusky; feet dull brownish slate. Wing, 115 mm.; tail, 95; exposed culmen, 26.25; culmen from base, 30; tarsus, 22.

REMARKS.—Female like the male, but smaller. Worn examples which have the tips of the feathers abraded are even more positively striped than the type. There is some variation in the exact tone of coloration, and the top of the head is frequently decidedly grayish with larger and whiter spots than in the type, though skins so marked are rather abraded. Worn skins also show a relatively prominent touch of brighter rufescence on the belly than is noticeable in the fresher skins, showing some contrast to the hue of the breast that is not apparent in the forms of *D. picus*. This is apparent also in young birds, which have the same relative characteristics as the adults though their general coloration is duller and less sharply marked.

The series of *necopinus* shows the following measurements. Males: wing, 101–115; tail, 86–95; culmen from base, 27–32.5; tarsus, 21–22.

Females: wing, 97–107.5; tail, 82–96; culmen from base, 28–30.5; tarsus, 20.25–22.

The existence of this bird has been unsuspected and further study probably will show that it has been confused with *D. p. picus* at various times in the past. Although its characters appear to be slight and are difficult to describe, it is relatively easy to recognize once its features are in mind. There are several taxonomic details that are not positive enough to be perfectly diagnostic, since they occur in some degree in occasional examples of the *picus* group; nevertheless, they are useful as contributory evidence. The primaries, in addition to being longer, and somewhat more narrowly acute at the tips, are inclined to be rather straighter; the line of the gonys from its angle to the tip is virtually straight, lacking the decided convexity of the average member of the *picus* group, though some slender-billed examples of the latter show it also. The rufous color of the uropygium averages deeper rufous than in the *picus* group.

Nothing is known as to possible differences in habitat for *necopinus* and *picus*. The latter is said to inhabit both inundated forest and the drier campos[1] in the lower Amazonian region. It is possible that both species are included in this account and that each is restricted to one or the other habitat, but future study in the field must determine the point. Outside of the range given, there is no indication of the characters of *necopinus* in any of the material examined, though there are many specimens of the *picus* group from other regions.

I originally had some misgivings that the name *kienerii* might be applicable to the form here described as *necopinus*. The measurements of the type of *kienerii* from Ega (=Teffé), Brazil, and a second male (=*peruvianus*) from Sarayacu, Perú, as given by Ménégaux and Hellmayr (1906, Bull. Soc. Hist. Nat. d'Autun, XIX, p. 108), show the wings to be 110 and 114 mm. respectively, and the tails, 101 and 102. These measurements are exceptionally large for the members of the *picus* group and though some examples of *necopinus* have the wings equally long, the tails are shorter than in these two birds. The difference is notable although it may have its origin in the preparation of the specimens, since the two birds in the Paris Museum are mounted and my own series are not.

However, Dr. Herbert Friedmann has kindly examined the type and the Sarayacu specimen for me, after seeing my series, and he reports that both have the shoulder rufous and the pectoral feathers tipped with

[1]E. Snethlage, 1913, Jour. für Orn., LXI, p. 527.

black. These characters leave no doubt that the name *kienerii* may safely remain with the *picus* group.

Mr. Berlioz of the Paris Museum has expressed doubts (in litt.) of the constancy of the differences that I ascribe to *necopinus* and the *picus* group, suggesting that they may be due to season, age, or condition of wear. However, this objection is met by the fact that the twenty-nine skins of *necopinus* represent every month but March, June, and September, while, in the series of *picus*, ninety-seven skins from the same general localities cover these months also. Both juvenal and adult plumages are found in both series and are as distinctive as the adults, and all conditions of wear are present for careful comparison. Consequently, the differences exhibited are not to be attributed to these causes but seem to show a genuine distinction of two specific groups.

None of the Teffé birds at hand can be referred to *necopinus*, and I have no assurance that this species occurs there or in Perú. I believe the name *kienerii*, therefore, is applicable to the form of *picus* to which it has been applied by recent authors.

The extreme development of the slender, straight, or lightly curved bill in this form approaches some *Xiphorhynchus* so closely that the distinction of the genus *Dendroplex* comes into serious question. In any case it remains rather poorly defined.

Specimens Examined

D. p. picus.—French Guiana: Approuague, 1 ♀; Cayenne, 1 ♂, 1 (?). Dutch Guiana: Paramaribo, 1 ♂, 1 ♀. British Guiana: 1 (?). Brazil: Faro, 6 ♂, 5 ♀, 1 (?); Rio Negro, Igarapé Cacao Pereira, 15 ♂, 11 ♀; Muirapinima, 2 ♂, 1 (?), Rio Tocantins, Mocajuba, 2 ♂, 2 ♀; Baião, 2 ♂, 2 (?); Rio Xingú, Tapará, 2 ♂, 1 ♀; Villarinho do Monte, 2 ♂, 1 ♀; Porto de Moz, 1 ♀, 1 (?); Rio Amazonas, Villa Bella Imperatríz, 10 ♂, 9 ♀, 2 (?); Rio Tapajoz, Igarapé Brabo, 5 ♂; Santarem, 2 (?), 1 ♀; Ilha de Goyana, 1 ♀; Aramanay, 5 ♂, 2 ♀, 1 (?); Rio Madeira, Borba, 4 ♂, 3 ♀; Igarapé Auará, 1 ♂, 4 ♀; Porto Velho, 1 ♂ (?); "Lower Solimões," 1 ♂; Rosarinho, 11 ♂, 4 ♀; Santo Antonio de Guajará, 3 ♂, 1 ♀, 1 (?). Venezuela: Río Orinoco, Sacupana, 1 ♀; Las Barrancas, 1 ♀.

D. p. kienerii.—Brazil: Teffé, 6 ♂, 4 ♀.

D. p. peruvianus.—Perú: Sarayacu, 1 ♂; Santa Rosa, upper Ucayali, 7 ♂ (incl. type), 1 ♀.

D. p. duidae.—Venezuela: Mt. Duida, Caño León, 1 ♂ (type); Savana Grande, 1 ♂; Valle de Los Monos, 1 ♂, 1 ♀; Esmeralda, 3 ♀; "Upper Orinoco," 1 ♀, 1 (?); Munduapo, 1 ♀ (not typical). Brazil: Rio Negro, Tabocal, 3 ♂, 3 ♀.

D. p. picus × *duidae.*—Brazil: Rio Negro, Manaos, 2 ♂, 2 ♀; Santa Isabel, 1 ♀.

D. p. picus × *picirostris.*—Venezuela: Río Orinoco, Ciudad Bolívar, 1 ♂, 1 ♀; Agua Salada de Ciudad Bolívar, 1 ♀.

D. p. subspecies (?).—Colombia: Villavicencio, 2 ♂.

D. p. subspecies (?).—Brazil: Descalvados, 1 ♂, 1 ♀; Tapirapoan, 1 ♂, 1 ♀, 1 (?); Utiarity, 1 ♀. Bolivia: Todos Santos, 1 (?).

D. necopinus.—Brazil: Rio Amazonas, Villa Bella Imperatríz, 3 ♂, 4 ♀; Rio Madeira, Borba, 2 ♂; Igarapé Auará, 1 ♂; Rosarinho, 1 ♀; Santo Antonio de Guajará, 4 ♂; Rio Negro, Muirapinima, 2 ♂ (incl. type), 1 ♀; Igarapé Cacao Pereira, 5 ♂, 3 ♀; Rio Jamundá, Faro, 1 ♂, 2 ♀.

Lepidocolaptes lacrymiger carabayae Hellmayr

Lepidocolaptes lacrymiger carabayae Hellmayr, 1920 (November), Arch. Naturg., LXXXV, A, Heft 10, p. 81—Chuhuasi (=Uruhuasi ?), near Ollachea, Sierra de Carabaya, Perú; ♂; Munich Mus.

I have no topotypical material of this form, but eight skins from the Junín region agree in detail with a specimen from the Urubamba Valley which has been examined by the author of the subspecies and identified by him as *carabayae.* These specimens agree also with the original description in almost all details. However, the bill is not quite so whitish as in *bolivianus* though with a definite whitish area on the maxilla that is not present in *warscewiczi.* The pale stripes of the under parts are noticeably narrower than in *warscewiczi* and the general color of the under parts is more tinged with olive, but the upper parts are much the same in both forms with the average (and dark extreme) of *carabayae* darker than in the northern birds.

Hellmayr (1925, Field Mus. Nat. Hist. Publ., Zool. Ser., XIII, pt. 4, p. 324, footnote *a*) records as *warscewiczi* a bird from Maraynioc with the color of the under parts approaching *carabayae* but with the brownish bill of *warscewiczi.* Judging by the skins at hand from this same region, the bird in question must belong to *carabayae* and may owe its brown bill to remains of immaturity. A young bird from Rumicruz has a dark bill but otherwise is much like adults in color (not in texture of plumage), except that the dark margins of the pale abdominal streaks are replaced in part by series of dots, a character noted also in young *warscewiczi.*

The upper part of the mantle in the Junín and Urubamba birds is little or not at all streaked with hairlike lines, as it is in *bolivianus* and most *warscewiczi;* there is enough variation in *warscewiczi,* however, to reduce the value of this character.

Records assignable to *carabayae* are from "Chuhuasi" (probably = Uruhuasi), Idma, San Miguel Bridge, Ropaybamba, and Maraynioc.

Lepidocolaptes lacrymiger warscewiczi (Cabanis and Heine)

T(hripobrotus) Warscewiczi Cabanis and Heine, 1859, 'Mus. Hein.,' II, p. 39—Perú; Heine coll., Halberstadt Mus.

Picolaptes peruvianus Taczanowski, 1882, P. Z. S. London, p. 28—Tamiapampa, Perú; ♂; (?) Warsaw Mus.

Eighteen birds from northern Perú belong to the form to which the name *warscewiczi* may well be restricted. According to Hellmayr (1925, Field Mus. Nat. Hist. Publ., Zool. Ser., XIII, pt. 4, p. 323, footnote *b*) the type is so foxed that its exact determination is impossible, and it may possibly be assignable to the form now known as *aequatorialis*. The exact locality is unknown and I do not have sufficient information regarding the itinerary of Warscewicz, who collected the specimen, to enable me to suggest a reasonably accurate type locality. However, the original description specifies Perú and, according to present knowledge, *aequatorialis* does not reach this country. Consequently the action of Taczanowski, in 1884, of submerging his own "*Picolaptes peruvianus*" under *warscewiczi* may be taken as definite fixation of the identity of both names.

Records belonging to this form are from Tamiapampa, Tambillo, Leimebamba, Tabaconas, Molinopampa, Chachapoyas, Levanto, and Cutervo.

Lepidocolaptes lacrymiger aequatorialis (Ménégaux)

Picolaptes warscewiczi aequatorialis Ménégaux, 1912, Rev. Franc. d'Orn., II, No. 43, p. 389—Baños, Ecuador.

Previously recorded from Perú by Chapman under the belief that Alamor, Ecuador, the locality in question, lay within the Peruvian boundary. There is every possibility that this form actually exists in the adjacent portion of Perú, since Alamor is almost on the boundary line, but there is no record to date. Chapman properly includes the Alamor records in his work on the 'Distribution of Bird-Life in Ecuador.'

The Ecuadorian series is variable, but in series may be separated from *warscewiczi* by a slightly more rufous tinge on the under parts. The upper parts are not definitely warmer in tone, except in a few extremes. Single specimens are placed with difficulty since they may be matched by birds from the range of the other form.

The single Colombian example, from Ricaurte, is warmly colored, but has the streaking on the under parts quite narrow as in *carabayae*, though the general characteristics are distinctive. More material from southwestern Colombia is desirable.

SPECIMENS EXAMINED

L. lacrymiger bolivianus.—BOLIVIA: Incachaca, 4 ♂ (incl. type), 4 ♀; Locotal, 1 ♂, 2 ♀; Miguelita, 1 ♂, 1 ♀; Yungas, 18° S. lat., 1 (?).

L. l. carabayae.—PERÚ: Rumicruz, 2 ♂, 2 ♀; Chelpes, 5 ♀; San Miguel, foot of Machu Picchu, 1 ♀.

L. l. warscewiczi.—PERÚ: San Pedro, south of Chachapoyas, 3 ♂, 2 ♀, 1 (?); La Leija, north of Chachapoyas, 5 ♂, 1 ♀; Chaupe, 5 ♀; Lomo Santo, 1 ♂.

L. l. aequatorialis.—ECUADOR: Alamor, 1 ♂, 1 ♀; Celica, 1 ♂; Zaruma, 1 ♂; Salvias, 1 ♂; San Bartolo, 2 ♀; Gualea, 2 ♂; Guachanamá, 1 ♂, 1 ♀; Papallacta, 1 ♀; Mindo, 1 ♂, 1 ♀; El Chiral, 5 ♂; Oyacachi, 1 ♂, 1 ♀; below Oyacachi, 1 ♂; upper Sumaco, 1 ♂, 1 ♀; Baeza, 3 ♂, 1 ♀; above Baeza, 1 ♂, 1 ♀. COLOMBIA: Ricaurte, 1 ♂.

Lepidocolaptes albolineatus fuscicapillus (Pelzeln)

Picolaptes fuscicapillus PELZELN, 1868, 'Orn. Bras.,' I, p. 63—Engenho do Capitao Gama; cotypes in Vienna Mus.

Picolaptes obtectus ALLEN, 1889, Bull. Amer. Mus. Nat. Hist., II, p. 94—no locality given; Mus. Comp. Zoöl., Cambridge.

I have no topotypical material, but can see little significance in the differences observable in a small number of specimens from various localities in Bolivia, Perú, and Ecuador.

The brightest example is a male from Todos Santos, Bolivia. A somewhat more worn female from Astillero, southeastern Perú, shows a paler coloration that is certainly, in part, due to fading. A female example from Tulumayo, Junín, is a little less warmly colored beneath than the two skins mentioned. Another female, from the Río Chinchipe, is slightly darker below and a little more narrowly striped. Two females from the Río Suno, Ecuador, are not unlike the Peruvian birds except that they are smaller. One shows some grayish tips on the feathers of the mantle, and both have the top of the head with remains of the juvenal plumage, spotted finely with whitish on a somewhat grayish ground.

Hellmayr (1908, Verh. Orn. Ges. Bay., XI (1), p. 161) has compared southeast-Peruvian examples with the three cotypes of *fuscicapillus* and found them very little different. The Peruvian birds were a little larger and had the top of the head somewhat duller than the back with a noticeable postocular streak of whitish, whereas the Brazilian cotypes had the top of the head as warmly colored as the back without a postocular streak. In the six birds now at hand, the top of the head is a little duller than the back, though the difference is not sharply marked. Pelzeln's original description and the name he gave to the form in question indicate some such difference in color in the cotypes, though age may have dis-

colored the skins and made the head and back more uniform, as noted by Hellmayr. The postocular (or supra-auricular) streak is present in all six of the birds before me, though my notes indicate its absence in a male from Río Colorado, Chanchamayo Valley, in Field Museum of Natural History. The two females from eastern Ecuador are smaller than the cotypes, but the Bolivian and Peruvian birds vary in both directions.

In any case, the series as a whole forms a distinct unit, variable in itself, but showing the same characteristic of brighter coloration as a criterion of separation from the other members of the group. Hence it is best left undivided, at least until a sufficient series is available from more numerous localities to show the value of such variable characters as may now be seen.

The pattern of the head in juvenal plumage bears a strong resemblance to that of *albolineatus* of the Guianas, as I have noted above, and is shown even more strongly by young birds of other forms in the group. When this feature is eliminated, the remaining differences between *albolineatus* and the *fuscicapillus* group are so slight that specific separation becomes questionable. A wider blackish submalar line, a darker bill, and a throat tinged with buff while the pectoral streaks remain white are all that separate examples of *albolineatus* from certain members of the *fuscicapillus* group, particularly those from the upper Rio Negro belonging to a new form to be described below. Hence I have treated the two groups as one, under the older name, *albolineatus*.

Records of *fuscicapillus* from Perú, not shown by material examined, are from Río Cosireni, Chaquimayo, and Borgoña.

Lepidocolaptes fuscicapillus madeirae (Chapman)

Thripobrotus layardi madeirae CHAPMAN, 1919, Proc. Biol. Soc. Wash., XXXII, p. 261—Porto Velho, Rio Madeira, Brazil; ♂; American Mus. Nat. Hist.

The type of this subspecies differs somewhat from a number of birds taken on the left bank of the Tapajoz, being slightly more warmly colored and more narrowly streaked on the under parts. A second male from the type locality is rather closer to the Tapajoz birds than to the type, indicating the variability of this character.

Our only skin from the right bank of the Tapajoz (Aramanay) belongs to *layardi* of the Pará region, agreeing well with two skins from near Pará and one from the Tocantins. A specimen from Diamantina, near Santarem, also east of the Tapajoz, apparently belongs to *madeirae*. This skin is in the U. S. National Museum, from which Dr. Friedmann writes me that there is no supra-auricular stripe present on the specimen

in question. Aramanay is a very little way upstream from Santarem but at a point where the river is much wider than at the mouth. With these two skins apparently conflicting in their evidence of distribution, the solution of the problem must await the collection of more material in the region under discussion.

Seventeen specimens from the upper right bank of the Rio Negro and the neighborhood of Mt. Duida demonstrate an unexpected extension of the specific range of this group. This series shows sufficient distinction from the known subspecies to warrant description as new, though its affinity to the other conspecies is unquestionable. It may be known as follows.

Lepidocolaptes albolineatus duidae, new subspecies

TYPE from "Campamento del Medio," Mt. Duida, Venezuela; altitude 350 feet. No. 274,044, American Museum of Natural History. Adult male collected January 19, 1929, by the Olalla brothers.

DIAGNOSIS.—Similar to *L. a. madeirae* of the Rio Madeira-Tapajoz region, but general color darker; back more deeply rufescent; pale ventral streaks averaging narrower; bill darker brown; a slight supra-auricular line of whitish (finer than in *L. a. layardi*); rufous color of wings and tail darker.

RANGE.—Lower elevations of Mt. Duida, Venezuela, and the right bank of the upper Rio Negro, Brazil.

DESCRIPTION OF TYPE.—Top of head grayish olive-brown with faint suggestions of dusky terminal margins and light shafts; mantle dark Brussels Brown; sides of neck similar, tinged with grayish; rump and upper tail-coverts Burnt Sienna × Auburn. Lores a little lighter than crown; auriculars largely sooty brown with some pale shaft-streaks at base; above the auriculars a very narrow line of whitish or buffy white, not very conspicuous; chin soiled whitish; upper throat similar with dusky margins; remainder of throat and malar region with the dusky borders submarginal, the margins more brownish; breast, sides, and flanks definitely striped, with relatively narrow whitish (Pale Olive-Buff) shaft-stripes, conspicuously outlined with sooty black, and broadly margined with Light Brownish Olive, all marks reaching the tips of the feathers; under tail-coverts similarly striped but the margins of the feathers are near Buckthorn Brown; middle of belly with dark outlines of shaft-stripes less distinct and margins of the feathers paler, grayish buff. Wings bright Auburn on exposed outer margins; a dusky area embracing all but the outer margins and a basal portion of the inner web of the outermost primary; dusky area less extended basad on remaining remiges and not quite reaching the tips of the feathers on the seventh (from outside) and succeeding primaries and becoming obsolete on the inner secondaries; upper wing-coverts rufescent with distinct, buffy gray exterior margins and tips on the greater series, less conspicuous on median series, more olivaceous on primary series, and obsolete on lesser series; under wing-coverts bright Ochraceous-Tawny except along carpal margin, which is buffy with dusky spots; axillars ochraceous tawny with dusky marginal spots. Tail light Auburn. Maxilla (in dried skin) dark brown; mandible dull yellowish; feet dull blackish brown. Wing, 92 mm.; tail 77; exposed culmen, 27; culmen from base, 31; tarsus, 18.

REMARKS.—Females similar but somewhat smaller. Wing, 85–88.5 mm.; tail, 69–73; exposed culmen, 24–25; culmen from base, 29–30.12; tarsus, 17–18.5.

Males measure: wing, 90–94 mm.; tail, 74–82.5; exposed culmen, 24–27; culmen from base, 28–31; tarsus, 17.75–18.5.

A young male from Playa del Río Base, Mt. Duida, December 4, 1928, is darker brown on the back than the adults, with traces of pale hair-streaks; the top of the head is decidedly grayish, with dusky terminal margins and distinctly rhomboid central spots of pale buffy white, closely similar to the marks in adult *albolineatus*. The under parts are striped somewhat as in adult *duidae*, but the dusky outlines enclose the pale central stripes which are rather purely white and rounded at their tips, not reaching the tips of the feathers; greater and median upper wing-coverts with a short, subterminal, dusky streak.

A male from Tatú, Rio Negro, is unusually finely streaked beneath and approaches *albolineatus*. Other specimens from this and other localities vary somewhat in the breadth of the streaks. Occasionally the streaks are as broad as in the narrower-striped examples of *madeirae* but never as broad as in the extremes of the latter form. Some Rio Negro examples are a little grayer and less olive on the underparts than the Mt. Duida birds, and one from Yucabi, which is in worn plumage, tends to approach Tapajoz skins of *madeirae* in this respect.

In the ranges of the different subspecies remain many gaps that can be closed only by future collecting. In the case of *duidae*, the connection between Mt. Duida and the Rio Negro still remains to be demonstrated.

SPECIMENS EXAMINED

L. a. albolineatus.—BRITISH GUIANA: Tumatumari, 1 ♂; Rockstone, 1 ♂, 2 ♀.

L. a. duidae.—VENEZUELA: Mt. Duida, "Campamento del Medio," 1 ♂ (type), 1 ♀; Playa del Río Base, 2 ♂, 2 ♀; Píe del Cerro, 1 ♂, 3 ♀. BRAZIL: Rio Negro, Tatú, 3 ♂; Yucabi, 2 ♂, 1 ♀; Mt. Curycuryari, 1 ♂.

L. a. layardi.—BRAZIL: Utinga, near Pará, 1 ♂, 1 ♀; Tury-assú, Maranhao, 1 ♂[1], 1 ♀[1]; Rio Tocantins, Mocajuba, 1 ♂; Rio Tapajoz (right bank), Aramanay, 1 ♂.

L. a. madeirae.—BRAZIL: Rio Madeira, Porto Velho, 2 ♂ (incl. type), 1 ♂[1]; Barão Melgaço, 1 ♀; Rio Tapajoz (left bank), Igarapé Brabo, 1 ♂, 2 ♀, 1 (?); Igarapé Amorin, 3 ♂, 2 ♀.

L. a. fuscicapillus.—BOLIVIA: Todos Santos, 1 ♂. PERÚ: Astillero, 1 ♀; Tulumayo, 1 ♀; Río Colorado, Chanchamayo Valley, 1 ♂[1]; Huarandosa, Río Chinchipe, 1 ♀. ECUADOR: Río Suno, above Avila, 1 ♀; lower Río Suno, 1 ♀.

[1]Specimens in Field Museum of Natural History, Chicago.